

**Containerized Seedling
Production Statistics
for Ontario, 1962**



85-5432/

CONTAINERIZED SEEDLING PRODUCTION
STATISTICS FOR ONTARIO, 1982

J.B. SCARRATT

under the auspices of the
CONTAINER STOCK WORKING GROUP OF THE
CANADA-ONTARIO JOINT FORESTRY RESEARCH COMMITTEE

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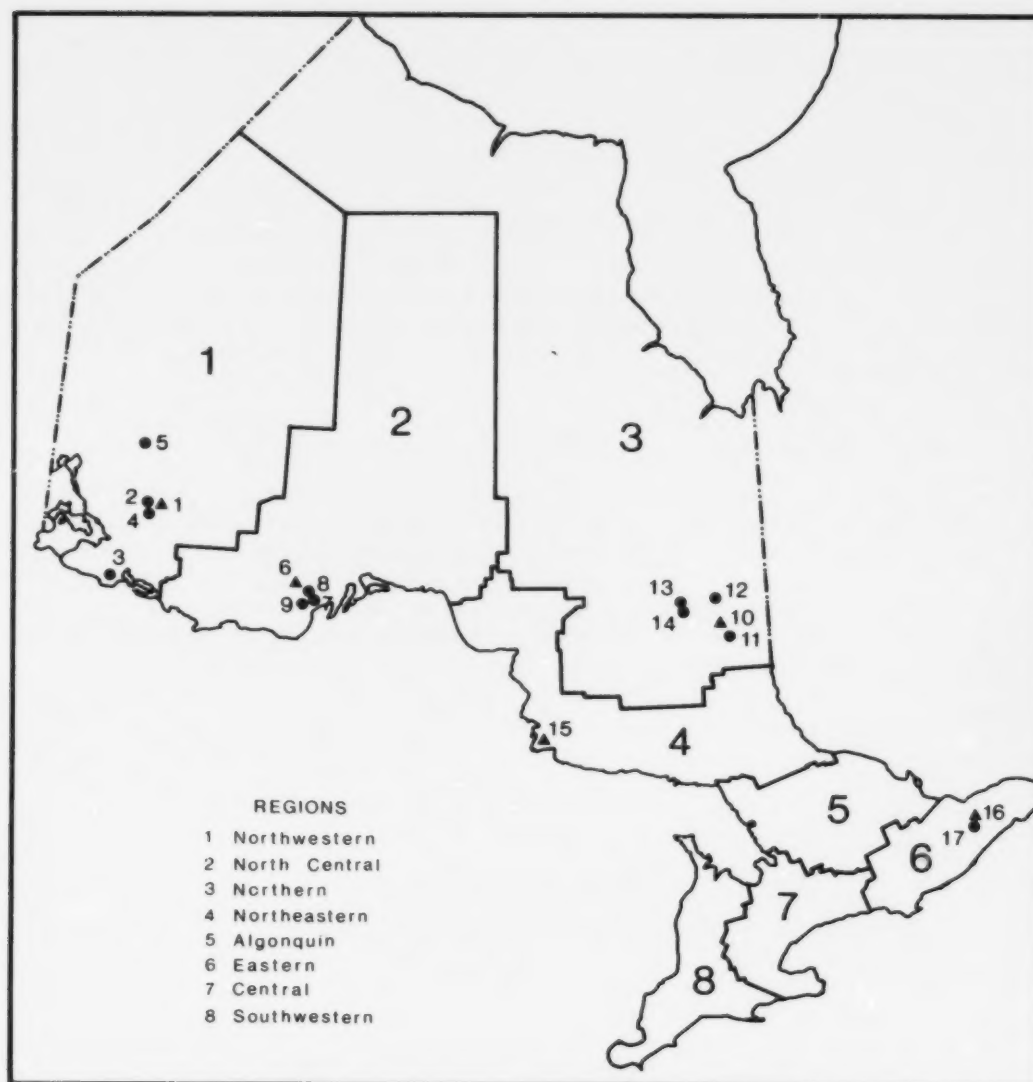
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ABSTRACT

In Ontario, five provincial crown and 12 private sector nurseries produced 31 million containerized tree seedlings for reforestation purposes during 1982. This represents approximately one third of all planting stock shipped during that year. Private sector nurseries accounted for approximately 56% of container production. Statistics are presented to contrast production of containerized and bare-root stock by administrative region, nursery, and species.

RÉSUMÉ

En Ontario, cinq pépinières de la couronne provinciale et 12 pépinières du secteur privé ont produit 31 millions de semis en récipients destinés au reboisement en 1982. C'est à peu près le tiers de la livraison totale matériel de plantation au cours de cette année-là. Les pépinières du secteur privé ont fourni approximativement 56% de la production du matériel en récipients. Des statistiques sur la production du matériel en récipients et du matériel à racines nues par régions administratives, pépinières et espèces sont présentées.



Frontispiece. Container production nurseries in Ontario, 1982.
 (Large numbers indicate administrative regions; small numbers indicate locations of nurseries listed in Table 4. ▲ - provincial crown nurseries, ● - private sector nurseries).

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INTRODUCTION

Ontario was one of the first provinces to introduce container planting into its reforestation program in the late 1960s. Until recently, however, and in contrast with the situation in several other provinces, container planting was perceived primarily as a supplement to the planting of bare-root stock. In this secondary role, production of containerized seedlings during the 1970s generally hovered around the 5 million mark, and rarely exceeded 10% of total planting stock production. Frequently it was much less.

The situation has changed dramatically in the last few years, and we are now witnessing a major expansion in both the size and role of the provincial container program. While this expansion is given impetus by the demand for substantially increased forest renewal, it has a significant corollary. The program is now becoming so large that it obviously can no longer be regarded simply as a supplement to the bare-root program. In many situations, if only for logistic reasons, container planting has become an alternative to bare-root planting. This increased reliance upon container planting has important implications with respect to planting stock specifications and regeneration prescriptions in general.

Concurrently with the expansion of planting programs, responsibility for the production and planting of container stock is undergoing major change. Since 1982, 21 Forest Management Agreements (FMAs) have been negotiated between the Province of Ontario and forest products companies, effectively transferring responsibility for much of the projected increase in reforestation activity to the private sector. Under the terms of these FMAs the Ontario Ministry of Natural Resources (OMNR) is responsible for supplying the planting stock, most of which will be container-grown. To meet this need a policy of privatizing additional container stock production was implemented in 1982, when the first private nurseries began growing containerized seedlings under contract to OMNR. Since that time the number of private growers involved in the program has increased steadily.

In 1983, the Container Stock Working Group of the Canada-Ontario Joint Forestry Research Committee (COJFRC) decided that it would be useful to initiate publication of an annual statistical summary of containerized seedling production in Ontario. Although a national directory of forest tree nurseries has been published¹, it was felt that a more detailed breakdown of planting stock production by type and species was desirable for adequate documentation of the rapidly changing provincial container program. Consequently, in the compilation of this report, data have been included to permit comparison between production of containerized seedlings and that of other types of nursery stock. Over the long term, it is hoped that these summaries will help to quantify trends in the development of different planting stock production techniques. This first

¹ Smyth, J.H. and Brownwright, A.J. 1984. Forest tree production centres in Canada - 1983. Dep. Environ. Can. For. Serv., Sault Ste. Marie, Ont. Inf. Rep. O-X-357. 45 p. + appendices.

statistical summary covers calendar year 1982, the first year in which private production of container stock became fully operational.

Most of the data for this report were provided by OMNR regional members of the Container Stock Working Group. For the Central and Southwestern regions only, planting stock production data were provided by the respective provincial nursery superintendents. The assistance of all contributors is gratefully acknowledged.

EXPLANATORY NOTES ON TABLES

- i. All data are for calendar year 1982. Container stock production is presented in terms of the total number of cavities sown and numbers of shippable seedlings produced.² The latter includes seedlings produced in 1982 either for shipping in the current year (1982) or for overwintering and shipping in the spring of 1983. It does not include overwintered seedlings shipped in the spring of 1982. Data for bare-root production include only seedlings shipped during calendar year 1982.
- ii. The data for container production exclude containerized seedlings grown for use in the production of accelerated bare-root transplant stock.
- iii. Accelerated bare-root data (Accel. transplants; tables 5-7) include production of transplants from both containerized and bare-root seedlings.
- iv. Nursery ownership.

All container production reported here was carried out in crown (i.e., OMNR) or private sector nurseries; there were no forest industry-operated container nurseries in Ontario in 1982. The entry for industrial production of container stock in North Central Region, given in Table 6, indicates a special situation whereby two private growers produced seedlings under direct contract to Abitibi-Price Inc. for planting on freehold land.

- v. Greenhouse type.

Heated houses with conventional heating and cooling systems

Unheated houses with assisted cooling (e.g., thermostatically controlled vents and extractor fans, or other mechanical cooling devices)

² The decision to report "shippable seedlings produced" rather than "seedlings shipped" was determined by the desire for an accurate portrayal of container nursery production on a crop-year basis. This approach avoids the problem of seedlings produced but not shipped (inherent in the reporting of "seedlings shipped"), and serves better to illustrate actual nursery productivity in a given year.

Shelterhouses - unheated houses or other protective structures with only passive cooling (i.e., no automatic vents or cooling fans)

vi. Table 4 - Container nursery directory.

The following information precedes the entry for an individual nursery:

- nursery number (same sequence as frontispiece map)
- (C) or (P) indicates crown or privately operated nursery, respectively
- mailing address
- name of nursery superintendent or owner
- telephone number

For each entry:

- (F) or (G) following greenhouse capacity indicates greenhouse style. (F) = free-standing, (G) = gutter-connected greenhouses.

- species abbreviations:

bS - black spruce
wS - white spruce
jP - jack pine
rP - red pine
wP - white pine
L - larch spp.
OC - other conifers

- the last column describes type of container system used, and percentage of use:

PP3 = FH308 paperpot
PP4 = FH408 paperpot
SL6 = Spencer-Lemaire "Rootrainer" 6
MP1 = Can-Am Multipot 1

Table 1. Summary of greenhouse capacities (m²) for containerized seedling production by region and ownership category, 1982.

Region	OMNR capacity			Private capacity			Total capacity		
	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses
Northwestern	2 233	-	-	3 183	950	-	5 416	950	-
North Central	1 403	-	-	10 521	-	-	11 924	-	-
Northern	4 250	-	-	9 289	1 365	-	13 539	1 365	-
Northeastern	1 552	1 070	1 070	-	-	-	1 552	1 070	1 070
Eastern	900	300	-	280	280	-	1 180	580	-
	10 338	1 370	1 070	23 273	2 595	-	33 611	3 965	1 070

1
4
1

Table 2. Summary of container system use (cavities sown) by region, 1982.

Region	Spencer-Lemaire	Japanese paperpot	Can-Am Multipot
- - - - - ('000 cavities sown) - - - - -			
Northwestern	7 675	-	-
North Central	1 655	7 718	-
Northern	-	13 651	-
Northeastern	-	3 744	-
Eastern	-	-	922
	9 330	25 113	922
% of total	26.4	71.0	2.6

Table 3. Summary of container system use (shippable seedlings produced) by region, 1982.

Region	Spencer-Lemaire	Japanese paperpot	Can-Am Multipot
- - - - - ('000 shippable seedlings) - - - - -			
Northwestern	7 631	-	-
North Central	1 159	6 672	-
Northern	-	11 302	-
Northeastern	-	3 252	-
Eastern	-	-	707
	8 790	21 226	707
% of total	28.6	69.1	2.3

Table 4a. Container production nurseries by region: Northwestern Region.

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)		Seedling production ('000 shippable seedlings)			Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Heated houses	Unheated houses	Shelter- houses	
1 (C) DRYDEN TREE NURSERY, ONTARIO MINISTRY OF NATURAL RESOURCES, P.O. BOX 90, WABIGOON, ONTARIO, P0V 2W0 [Terry Myland. Tel. (807) 938-6326]								
2233 (F)	-	-	jp 576 bs 3675	- -	- -	jp 576 bs 3675	- -	SL6 - 100%
			4251			4251		
2 (P) EVERGREEN FARMS (SCHMIDT FLOWERS), 48 PRINCESS STREET, DRYDEN, ONTARIO, P0N 1C7 [Ken Schmidt and Charles Queau. Tel. (807) 937-5239]								
2090 (F)	-	-	jp 1409 bs -	- -	- -	jp 1391 bs -	- -	SL6 - 100%
			1409	-	-	1391	-	
3 (P) RIVERSIDE NURSERY, R.R.#2, DEVLIN, ONTARIO, P0W 1C0. [Mr. and Mrs. N. Mats. Tel. (807) 486-3421]								
371 (F)	-	-	jp 415 bs -	- -	- -	jp 407 bs -	- -	SL6 - 100%
			415	-	-	407	-	(cont'd)

Table 4a. Container production nurseries by region: Northwestern Region (concl.).

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)			Seedling production ('000 shippable seedlings)			Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	
4 (P) TAMARAC NURSERIES, R.R.#2, DRYDEN, ONTARIO, PBN 2Y5. [David, Steven and Daniel Lick. Tel. (807) 937-6621]									
722 (F)	-	-	jP 600	-	-	jP 598	-	-	SL6 - 100%
			bs -	-	-	bs -	-	-	
			600	-	-	598	-	-	
5 (P) WELLAIR CONCEPTS INC., P.O. BOX 339, EAR FALLS, ONTARIO, POV 1TO [P. Wiesinger. Tel. (807) 222-2325]									
-	950 (F)	-	jP -	1000	-	jP -	984	-	SL6 - 100%
			bs -	-	-	bs -	-	-	
			-	1000	-	-	984	-	

Table 4b. Container production nurseries by region: North Central Region.

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)		Seedling production ('000 shippable seedlings)		Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Heated houses	Unheated houses	
6 (C) THUNDER BAY FOREST STATION, ONTARIO MINISTRY OF NATURAL RESOURCES, R.R.#1, THUNDER BAY, ONTARIO, P7C 6T9.							
[Bob Klapprat. Tel. (807) 939-2558]							
1403 (F)	-	-	JP BS 1655	-	JP BS 1159	-	SL6 - 100%
			1655	-	1159	-	
7 (P) CREEKSIDE NURSERY, R.R.#11, THUNDER BAY, ONTARIO, P7B 5K2.							
[Dennis Trevisanutto. Tel. (807) 767-3437]							
3211 (F)	-	-	JP BS 2117	-	JP BS 1736	-	PP4 - 100%
			2117	-	1736	-	
8 (P) HILLS GREENHOUSES LTD., OLIVER ROAD, MURILLO, THUNDER BAY, ONTARIO, P0T 2G0							
[H. Vanduyn and R. Meems. Tel. (807) 935-2626]							
1. Production for Crown							
3612 (F)	-	-	JP BS 2117	-	JP BS 1792	-	PP4 - 100%
2. Production for Abitibi-Price Inc.							
803 (F)	-	-	JP BS 1140	-	JP BS 1120	-	PP4 - 100%
			3257	-	2912	-	

(cont'd)

Table 4b. Container production nurseries by region: North Central Region (concl.).

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)			Seedling production ('000 shippable seedlings)			Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	
9 (P) HOEWITZ ENTERPRISES LTD., R.R.#6, THUNDER BAY, ONTARIO, P7C 5N5									
[Jim and Dan Hoewitz. Tel. (807) 939-6027]									
1. Production for Crown									
1926 (F)	-	-	jP bs	- 1500	- -	jP bs	- 1290	- -	PP4 - 100%
2. Production for Abitibi-Price Inc.									
969 (F)	-	-	jP bs	- 844	- -	jP bs	- 734	- -	PP4 - 100%
				2344	-		2024	-	

Table 4c. Container production nurseries by region: Northern Region.

Greenhouse capacity (m ²) and style		Seedling production ('000 cavities sown)		Seedling production ('000 shippable seedlings)		Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	
10 (C) SWASTIKA FOREST STATION, ONTARIO MINISTRY OF NATURAL RESOURCES P.O. BOX 129, SWASTIKA, ONTARIO, POK 1T0. [L.J. Forcier. Tel. (705) 567-3372]						
4250 (F)	-	-	WS 242 BS 1848 JP 2823 L 6	- - - -	WS 146 BS 1836 JP 2507 L 5	PP3 - 50% PP4 - 50%
			4919	-	4494	-
11 (P) AIDIE CREEK GARDENS, R.R.#3, ENGLEHART, ONTARIO, POK 1B0. [Charles Warner. Tel. (705) 544-2474]						
1084 (F)	1365 (F)	-	JP 806 BS -	1008 -	JP 630 BS -	750 -
			806	1008	630	750
12 (P) EMERGEM ENTERPRISES INC., (RAMORE), P.O. BOX 329, SWASTIKA, ONTARIO, POK 1T0 [G. Lavangie. Tel. (705) 236-4311]						
5619 (G)	-	-	JP 2794 BS 1595	- -	JP 2370 BS 810	- -
			4389	-	3180	PP3 - 50% PP4 - 50%

(cont'd)

Table 4c. Container production nurseries by region: Northern Region (concl.).

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)			Seedling production ('000 shippable seedlings)			Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	
13 (P) LAFLEUR GARDENS LTD., R.R.#2, TIMMINS, ONTARIO, P4N 7C3. [Richard Lafleur. Tel. (705) 267-2972]									
2185 (G)	-	-	JP 14	-	-	JP 13	-	-	PP4 - 100%
			BS 2003	-	-	BS 1737	-	-	
			2017	-	-	1750	-	-	
14 (P) MILLSON FORESTRY SERVICE, MORTGLEN PARK, R.R.#1, TIMMINS, ONTARIO, P4N 7C2 [Mr. and Mrs. David Millson. Tel. (705) 232-4836]									
401 (F)	-	-	JP 512	-	-	JP 498	-	-	PP4 - 100%
			BS -	-	-	BS -	-	-	
			512	-	-	498	-	-	

Table 4d. Container production nurseries by region: Northeastern Region.

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)			Seedling production ('000 shippable seedlings)			Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	
1552 (F)	1070 (F)	1070 (F)	JP 1128	768	768	JP 972	703	686	PP4 - 100%
			RP 819	-	-	RP 679	-	-	
			WP 261	-	-	WP 212	-	-	
			BS -	-	-	BS -	-	-	
			2208	768	768	1863	703	686	

15 (C) THESSALON NURSERY, ONTARIO MINISTRY OF NATURAL RESOURCES
P.O. BOX 310, THESSALON, ONTARIO, P0R 1L0.

[Glenn Connell. Tel. (705) 842-3914]

Table 4e. Container production nurseries by region: Eastern Region.

Greenhouse capacity (m ²) and style			Seedling production ('000 cavities sown)			Seedling production ('000 shippable seedlings)			Container system used
Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	Heated houses	Unheated houses	Shelter- houses	
16 (C) G. HOWARD FERGUSON FOREST STATION, ONTARIO MINISTRY OF NATURAL RESOURCES, R.R.#4, KENYOTVILLE, ONTARIO, K0G 1J0									
[A.J. Campbell. Tel. (613) 258-3413]									
900 (F)	300 (F)	-	WP	-	300	WP	-	286	MP1 - 100%
			JP	-	-	JP	-	-	
			BS	-	-	BS	-	-	
			OC	22	-	OC	20	-	
				22	300	-	20	286	
17 (P) WALSH NURSERIES LTD., KENYOTVILLE, ONTARIO, K0G 1J0									
[Irvin Walsh. Tel. (613) 258-2383]									
280 (F)	280 (F)	-	FP	24	-	FP	20	-	MP1 - 100%
			WP	26	400	WP	23	231	
			JP	-	-	JP	-	-	
			L	130	-	L	110	-	
			BS	-	-	BS	-	-	
			OC	20	-	OC	17	-	
				200	400	-	170	231	

Table 5. Summary of planting stock production, all sources, for calendar year 1982 by region and type ('000 shippable seedlings).

Region	Containerized		Bare-root		Accel. transplants		Cuttings		Total production
	Number	% of total	Number	% of total	Number	% of total	Number	% of total	
Northwestern	7 631	66.0	3 925	34.0	-	-	-	-	11 556
North Central	7 831	44.6	9 719	55.4	-	-	-	-	17 550
Northern	11 302	39.4	16 820	58.6	170	0.6	398	1.4	28 690
Northeastern	3 252	87.1	482	12.9	-	-	-	-	3 734
Eastern	707	7.3	7 910	81.6	-	-	1 071	11.1	9 688
Central ^a	40	0.3	14 670	99.3	65	0.4	-	-	14 775
Southwestern	-	-	5 943	97.3	-	-	165	2.7	6 108
	30 763	33.4	59 469	64.6	235	0.2	1 634	1.8	92 101

^a Includes both Midhurst and Orono Forest sections.

^a Includes both Midhurst and Orono Forest Stations.

Table 6. Summary of planting stock production for calendar year 1982 by region, type and source ('000 shippable seedlings).

Region	Containerized			Bare-root			Accel. transplants			Cuttings		
	OMNR	Private	Industry	OMNR	Private	Industry	OMNR	Private	Industry	OMNR	Private	Industry
Northwestern	4 251	3 380	-	3 925	-	-	-	-	-	-	-	-
North Central	1 159	4 818	1 854 ^a	8 719	-	1 000 ^b	-	-	-	-	-	-
Northern	4 494	6 808	-	16 820	-	-	170	-	-	398	-	-
Northeastern	3 252	-	-	482	-	-	-	-	-	-	-	-
Eastern	306	401	-	7 910	-	-	-	-	-	1 071	-	-
Central (Midhurst)	-	-	-	8 639	-	-	-	-	-	-	-	-
(Orono)	40	-	-	6 031	-	-	65	-	-	-	-	-
Southwestern	-	-	-	5 943	-	-	-	-	-	165	-	-
	13 502	15 407	1 854	58 469	-	1 000	235	-	-	1 634	-	-

^a Produced by private nurseries under contract to Abitibi-Price Inc. for planting on freehold land.

^b Kimberly-Clark of Canada Ltd.

Table 7. Summary of planting stock production, all sources, for calendar year 1982 by region, type and species ('000 shippable seedlings).

Region	Stock type	Species							Total production
		White spruce	Black spruce	Jack pine	Red pine	White pine	Larch	Other conifers	Hard-woods
Northwestern	Containerized	-	3 675	3 956	-	-	-	-	-
	Bare-root	1 519	1 439	792	1 163	-	-	12	-
	Accel. transplants	-	-	-	-	-	-	-	-
North Central	Containerized	-	7 831	-	-	-	-	-	-
	Bare-root	2 851	4 297	2 014	557	-	-	-	-
	Accel. transplants	-	-	-	-	-	-	-	-
Northern	Containerized	146	4 383	6 768	-	-	5	-	-
	Bare-root	6 529	6 455	3 822	-	-	-	14	-
	Accel. transplants	-	170	-	-	-	-	-	-
Northeastern	Containerized	-	-	2 361	679	212	-	-	-
	Bare-root	1	-	253	156	52	-	-	-
	Accel. transplants	-	-	-	-	-	-	-	-
Eastern	Containerized	-	-	-	20	540	110	37	-
	Bare-root	1 322	34	819	2 523	1 709	244	1 023	-
	Accel. transplants	-	-	-	-	-	-	-	-
Central	Containerized	-	-	-	-	-	-	-	-
	Bare-root (Midhurst)	1 929	1 292	165	1 427	1 970	29	40 ^a	-
	Bare-root (Orono)	1 880	-	12	1 952	1 047	-	1 396	-
Southwestern	Containerized	-	-	-	-	-	-	-	-
	Bare-root	539	-	84	223	2 420	9	950	-
	Accel. transplants	-	-	-	-	-	-	-	-
Total	Containerized	-	-	-	-	-	-	-	-
	Bare-root	16 781	29 974	21 046	7 700	7 950	397	5 404	2 849
	Accel. transplants	-	-	-	-	-	-	-	-
	Cuttings	-	-	-	-	-	-	-	-
		16 781	29 974	21 046	7 700	7 950	397	5 404	2 849
		92 101							

^a Orono Forest Station (Scots pine for Christmas tree production).

COJFRC CONTAINER STOCK WORKING GROUP

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